

ANALOG FRONT-END HAVING BUILT-IN EQUALIZATION AND  
APPLICATIONS THEREOF

ABSTRACT OF THE DISCLOSURE

An analog front-end having built-in equalization includes a control module and a tunable gain stage. The control module is operably coupled to provide a frequency response setting based on a channel response of a channel providing high-speed serial data to the analog front-end. The tunable gain stage includes a frequency dependent load and an amplifier input section. The frequency dependent load is adjusted based on the frequency response setting. The amplifier input section is operably coupled to the frequency dependent load and receives the high-speed serial data. In conjunction with the frequency dependent load, the amplifier input section amplifies and equalizes the high-speed serial data to produce an amplified and equalized serial data.